AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (withdrawn): A fungus *Aspergillus sp.* deposited in the Microbial Type Culture Collection and Gene bank (MTCC) of Institute of Microbial Technology, Chandigarh, India, under the accession number MTCC 5102.

2. (withdrawn): A fungus as claimed in claim 1, wherein the said fungi is:

(a) a deuteromycete fungus;

(b) it appears granular, light yellow-green to deep yellow-green in color in malt extract agar plate;

(c) conidiophores are uni-seriate, conidial heads are globose and echinulate, and

(d) grows in the sea water and distilled water with carbon and nitrogen source in a pH range of 7.0-9.0 and temperature range of 5° to 30° C.

3. (withdrawn): The fungus claimed in claim 1, wherein it can be grown in distilled water containing carbon and nitrogen source with pH of about 7.0 and temperature of about 30°C

4. (withdrawn): The fungus claimed in claim 1, wherein it can be grown in seawater containing carbon and nitrogen source with pH of about 9.0 and temperature of about 5°C.

5. (withdrawn): A low temperature active alkaline protease enzyme.

6. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme is active in the pH range of 6.0 to 11.0.

7. (withdrawn): A protease enzyme as claimed in claim 6, wherein the most preferred pH is about 10.

8. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme shows activity within a range of 15°C to 60°C.

9. (withdrawn): A protease enzyme as claimed in claim 5, wherein the enzyme shows 100% activity at about 42-47°C.

10. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme is thermo-stable within temperature range of 40°C to 50°C.

11. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the maximum thermo-stability was obtained at about 43-47°C.

12. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme shows maximum activity with an incubation period of 30 to 60 minutes.

13. (withdrawn): A protease enzyme as claimed in claim 5, wherein the said enzyme shows increased activity with increasing concentration of enzyme.

14. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme shows maximum activity at a substrate concentration of 1.5% to 2.0%.

15. (withdrawn): A protease enzyme as claimed in claim 5, wherein, the said enzyme produced by the said fungus is serine protease.

16. (currently amended): A process for producing ~~low temperature~~ alkaline protease enzyme from *Aspergillus sp.* 5102 ~~fungal strain~~deposited under MTCC accession no. ~~MTCC~~ 5102, said process comprising the steps of:

a) growing an *Aspergillus sp.* fungal strain ~~MTCC 5102~~ in seawater with a ~~as~~ culture medium containing ~~malt extract~~a carbon source and a nitrogen source at a temperature selected from the range consisting of 15-60° C to obtain a fungal mat;

b) macerating the fungal mat to obtain a starter culture;

c) adding the starter culture to ~~the~~ a liquid Czapek Dox experimental medium comprising glucose, $NaNO_3$, K_2HPO_4, $MgSO_4$, KCl and $Fe_2SO_4^{-1}$ seawater, wherein said medium exhibits a with a pH range of 7.0 to 9.0;

d) allowing the culture to grow for 4 to 6 days as a shallow static culture, and

e) filtering ~~the~~ a cell free clear supernatant solution obtained from step (d) to obtain alkaline protease.

17. (currently amended): The process as claimed in claim 16, wherein the ~~fungus~~ *Aspergillus sp.* 5102 ~~bearing international deposition number MTCC 5102 having~~has the following characteristics:

a) a deuteromycete fungus;

b) it appears granular, light yellow-green to deep yellow-green in color in malt extract agar plate;

c) conidiophores are uni-seriate, conidial heads are globose and echinulate, and

d) grows in the sea water and distilled water with carbon and nitrogen source in a pH range of 7.0-9.0 and temperature range of 5° to 30° C.

18. (currently amended): The process as claimed in claim 16, wherein the ~~*fungus*~~ *Aspergillus sp.* 5102 ~~can be~~ is grown in ~~distilled water~~seawater at a temperature of about 30°C and wherein the culture medium ~~containing carbon and nitrogen source with~~ has a pH of about 7.0 ~~and temperature of about 30^0C~~.

19. (currently amended): The process as claimed in claim 16, wherein the *Aspergillus sp.* 5102 ~~said fungus can be~~is grown in seawater at a temperature of about 30°C and wherein the culture medium of step (a) ~~containing carbon and nitrogen source with~~ has a pH of about 9.0 ~~and temperature of about 5^{0}C~~.

20. (currently amended): A process as claimed in claim 16, wherein the culture medium of step (a)~~media~~ is comprised of ~~water~~ seawater~~mixed with~~ and about 0.3% (w/v) peptone and about 2.0% (w/v) of malt extract.

21. (currently amended): A process as claimed in claim 16 ~~(c)~~, wherein~~,~~ the experimental medium of step (c) ~~comprising~~ further comprises ~~Czapek Dox broth to which added glucose or cellulose at a concentration of 1% (w/v),~~commercially available ~~casein,~~ spray-dried dairy ~~whitener, soybean meal, molasses or corn steep liquor~~ in a concentration of ~~independently at~~ 1% (w/v).

22. (withdrawn): A method of using a low temperature-active alkaline protease as detergent additive, for dehairing of hides, in food industries, for processing of waste feathers, recovery of silver from gelatine-coated X-ray films and treatment of industrial and domestic wastes and other similar applications wherever required by applying/treating a fabric, hide, food materials, feathers, x-ray films and industrial and domestic wastes with the said alkaline protease.